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REMARKS/ARGUMENTS

Claims 1 through 12 are pending in the application.

Former claims 1 through 12 were rejected as obvious in light of Noble United States Patent 5,813,701 alone or in combination with United States Patent 3,349,805 to Fried and further in view of United States Patent 3,825,288 to Maroschak. Reconsideration of this rejection is requested.

Claim 1 requires a repositionable downspout extension having a downspout connector end 4 an expandable corrugated middle section 6 and a drainage pipe connector end 8. This repositionable downspout extension has the advantage that it can connect using the circular collar of the drainage pipe connector 8 to connect with common drainage pipe for example, a 3 inch corrugated drainage pipe not commonly used for buried drain pipe. This type of corrugated drain pipe is not expandable and repositionable in the manner of the present downspout extension, but is commonly used in association with the redirecting of rainwater. The claimed downspout extension with the drain pipe connector at one end thereof allows the home owner to make a cost effective, convenient connection to existing drain pipe or to use commonly used drain pipe for transporting of the rainwater greater distances underground. In addition, this drainage pipe connector also allows two downspout extensions to be connected as discussed in the application and also acts as a collar when the corrugation connector of the downspout connector as defined in claim 2 is used for joining of two downspout extensions.

The primary reference United States Patent 5,813,701 discloses a flexible downspout extension of an alternate and significantly different structure. In particular, this downspout extension is connectable to a further downspout extension by removing at least one rectangular connector 22b and allowing connector 20b to be inserted in connector 16a provided at the opposite end. Such a connection is shown as 20a and 16b in Figure 1. A review of this document and the description of the operation of the downspout extension fails to teach any means for connecting of this downspout extension to conventional drainage pipe. The only teaching is of a connection of one of these flexible downspout extensions to a further downspout extension of the same construction.

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In the Official Action the Examiner refers to a drainage pipe connector 20a. This connector as described in the patent column 5 lines 60 through 65 clearly states that a lockable collar portion 16 is provide at one end of the downspout extension and a second interlockable collar portion 20 is provided at the opposite end. The collar portion 16 interconnects and is lockable with the collar portion 20. There is no suggestion or teaching that these are adaptable to be connected to conventional drainage pipe and in fact as described in column 7 of the reference lines 21 through 35 these collars have to be of slightly different sizes and include interlocking collars whereby the first interlockable collar 16 slides over the second interlockable collar portion 20 (see column 7 lines 45 through 57). The patent specification states that the oversized first collar portion 16b is placed over the smaller second collar portion 20a column 9 lines 25 through 33.

It is therefore submitted that the reference does not include a drainage pipe connector end 20a as this is merely a smaller interlocking collar for connecting with a slightly larger interlocking collar provided at the opposite end of the downspout extension.

On page 3 of the Official Action reference is made to the downspout connector of this reference including a corrugation connector 16a for connecting with the corrugated middle section as required in claim 2 of the present application. As outlined above, collar 16a is an interlocking collar of slightly greater size than the second interlocking collar 20a. There is no description nor recognition that a corrugation connector can be provided at the downspout connector end, as required in the present application, for connecting with and locking with the pleated portion of the corrugated middle section. The only teaching of this particular combination is found in the present application. It is clear from the passages referred to above that 16a and 20a are interlocking collars for cooperating with each other. There is no suggestion let alone teaching that a corrugation connector could be provided for allowing connection of two downspout extensions as required in the present application where the connection is formed with the pleats of the corrugation. As the Examiner can appreciate and as clearly shown in Figure 10 of the present drawings this results in a very clean connection of the two downspout extensions where the corrugations effectively merge with each other and provide a much more consistent continuous product. There is no significant change in cross section and the flow characteristics are satisfactory.

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The Examiner has referred to Figures 10c and 10d in this reference and the locking arrangements 48a and 46b of the reference. As previously argued these do not inter-engage and lock with the corrugations but merely provide separate interlocking structures which again extend the product and do not effectively make use of the corrugations for a locking surface as disclosed and claimed in the application. This additional structure in combination with the reference specifically requiring downspout extensions at either end, produce excessive connector portions either end of the middle corrugations. In contrast, the present invention has provided these couplers at only one end and a compact drainage pipe connector at the opposite end. As can be appreciated the present invention defines a particular cooperating locking engagement of the corrugations with the corrugation connector and does not use separate locking collars essential to the primary reference.

In rejecting certain claims in the application the Examiner has combined Noble with Fried. Fried discloses a hose having an end with diameter that progressively reduces in size so that the hose may be connected to various sizes of hoses. It is then argued that it would have been obvious to of ordinary skill in the art at the time of the invention to modify the downspout end of Noble to have a number of reduced size connector ends as suggested by Fried in order to enable the hose to connect to regular size downspouts. In this regard the Examiner must recognize that the primary reference already has considered this possibility and has a specific structure with a downspout extension of one size at one end of the product and a different downspout of a reduced size at the opposite end of the product. There is no requirement to consider any alternate structure as the primary reference has such a structure that allows connection to downspouts of different sizes. There is no recognition in the prior art and in particular the primary reference teaches away from providing these structures at a single end. Furthermore the prior art fails to recognize the advantages of providing a drainage pipe connector with a circular collar at the opposite end of the downspout extension. It is only based on hindsight and with full knowledge of the present disclosure and drawings that one would ever consider to modify the primary reference in light of Fried as there is no need to make such a modification.

In rejecting claim 10 in the application the Examiner has additionally cited United States Patent 3,825,288. This third reference effectively teaches away from the integrated downspout extension having the particular connecting portions already built into the product.

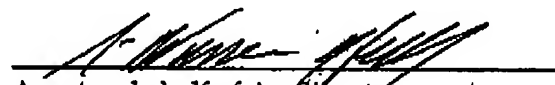
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The Maroschak reference effectively teaches specialized connector portions which are independent products used to connect different lengths of corrugated pipe. At every connection a specialized connector is used for joining of the two pipe sections. There is no suggestion in any of the references that these can be combined as outlined in the present application to form such a connection and there is no suggestion for joining of pleated sections by means of the integral connector as required in claim 10. Furthermore, as outlined with respect to the earlier claims the present product already includes a drainage pipe connector for connecting with traditional drainage pipe as used with the connector of Maroschak. The rejection of claim 10 is based on a mere selection of a diverse series of components for different purposes from reference which operate in a different manner. When each of these references are considered in their entirety, the references teach away from the solution presently claimed.

In view of the above reconsideration and allowance of the application is requested.

Respectfully submitted,


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WH:jmc